

CURRICULUM VITAE

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Visiting Scholar

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RESEARCH AREA

Formal space-time modeling of paleoclimate data.

EDUCATION

Harvard University, Ph.D. (Earth and Planetary Sciences), 2009.

Adviser: Peter Huybers.

Dissertation title: "A Bayesian approach to reconstructing space-time climate fields from proxy and instrumental time series, applied to 600 years of Northern Hemisphere surface temperature data."

Harvard University, M.A. (Statistics), 2006

University of Toronto, Honours B.Sc. with High Distinction (Major: Physics. Minors: Math and Political Science), 2003

PUBLICATIONS

Tingley, Martin P. and Peter Huybers. A Bayesian Algorithm for Reconstructing Climate Anomalies in Space and Time. Part 1: Development and applications to paleoclimate reconstruction problems. *Manuscript accepted by Journal of Climate*.

Tingley, Martin P. and Peter Huybers. A Bayesian Algorithm for Reconstructing Climate Anomalies in Space and Time. Part 2: Comparison with the Regularized Expectation-Maximization Algorithm. *Manuscript accepted by Journal of Climate*.

Tingley, Martin P. and Peter Huybers. The spatial mean and dispersion of surface temperatures over the last 1200 years: warm intervals are also variable intervals. *Manuscript in revision with Climatic Change*.

Wunch, Debra, Martin P. Tingley, Theodore G. Shepherd, James R. Drummond, G.W.K. Moore and Kimberly Strong, 2005: Climatology and Predictability of the Late Summer Stratospheric Zonal Wind Turnaround over Vanscoy, Saskatchewan. *Atmospheres and Oceans*. 43 (4), 301-313.

MAJOR AWARDS AND DISTINCTIONS

- NSF Graduate Fellow (2004-2007)
- NSERC (Natural Sciences and Engineering Research Council of Canada) Graduate Fellow (2003; declined)
- James Loudon Gold Medal in Physics (2003; Awarded to top graduating physics student at U. Toronto)
- Other U. Toronto distinctions: Dean's List (4 years) University of Toronto Scholar (2002); Photonics Scholarship (2001-2003); Doctor James A. and Connie P. Dickson Scholarship in the Sciences and Mathematics (2000-2003); Howard Ferguson Scholarship, (1999-2003).

TEACHING EXPERIENCE

Teaching Fellow, Harvard University 2004-2008

- Freshman Seminar 221: Climate Change (Spring 2008);
- Statistics 104 (Fall 2007, Spring 2006, Fall 2005);
- Earth and Planetary Science 132 (Fall 2006);
- Applied Math 105a (Fall 2004).

CONFERENCE PRESENTATIONS

A Bayesian approach to reconstructing climate fields from proxy data. Martin Tingley, Peter Huybers and Konrad Hughen, PAGES Young/Open Science Meeting, 2009 (Oral presentation and poster at YSM, Young Scientist Awardee Talk at OSM).

A hierarchical Bayesian analysis of a high latitude, high resolution multiproxy data set over the last 500 years. Martin Tingley and Peter Huybers, AGU Fall Meeting, 2008 (Oral Presentation).

A Bayesian algorithm for reconstructing spatially arrayed temperatures. Martin Tingley and Peter Huybers, 2008. Bayesian Hierarchical Models for High-Resolution Climate Reconstructions, First All-Hands Meeting, August 8th, 2008, NCAR, Boulder, Colorado (Oral Presentation).

A Bayesian algorithm for reconstructing spatially averaged temperatures. Martin Tingley and Peter Huybers, AGU Fall Meeting, 2007 (Poster).

An analysis of the spatial mean and dispersion of surface temperatures over the last 1200 years. Martin Tingley and Peter Huybers, American Geophysical Union (AGU) Fall Meeting, 2006 (Poster).

WORKSHOPS AND SUMMER SCHOOLS

International Graduate Institute's Summer School on Statistics & Climate. 9-13 August 2008; National Center for Atmospheric Science (NCAR), Boulder, Colorado.

Application of Statistics to Numerical Models: New Methods and Case Studies. 21-23 May 2007; NCAR, Boulder, Colorado.

Stochastic and Statistical Parameterization of Unresolved Features in the Atmosphere and Upper Ocean. 27 February - 3 March 2006; NCAR, Boulder, Colorado.